

Appl. No. 09/811,360  
Amendment dated October 6, 2005  
Reply to Office Action mailed May 12, 2005

Attorney Docket No. 355004-991501

**Claim 41 (Previously presented):** The method of any of Claims 25 and 31, wherein the coupling step includes impacting the base extension of the partial humeral head fixation nonintrusive to an elongate region of the humerus below a ball region of the humerus.

**Claim 42 (Previously presented):** A total shoulder arthroplasty method for recreating an anatomic proximal humeral configuration, comprising the steps of:  
preparing a stemless humeral head fixation having a partial humeral head including a base surface and a non stem-bearing, stabilizing, non-intramedullary base extension including multiple fins for rotational stabilization of the humeral head on a cut humeral surface for coupling to the cut humeral surface;  
preparing a humeral surface for coupling the humeral head fixation thereto, including cutting the humeral surface to reveal a cancellous interior; and  
coupling the humeral head fixation to the humeral surface, thereby recreating the anatomic proximal humeral configuration, including impacting the base extension of the humeral head fixation to protrude only into a ball region of the humerus above an elongate region of the humerus, wherein the base surface of the partial humeral head contacts or substantially mates with the cut humeral surface when coupled therewith and the non-intramedullary base extension is impacted into the cancellous region, and  
wherein the multiple fins are formed to have a cruciform shape and are uniformly planar along their entire extents and directly intersect at a center of the base surface, said center having a diameter that is approximately equal to a thickness of each of said fins, such that each said multiple planar fin protrudes radially along a plane from the center of the base surface where it intersects with each of the other fins.

Appl. No. 09/811,360  
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**Claim 43 (Previously presented):** A total shoulder arthroplasty method for recreating an anatomic proximal humeral configuration, comprising the steps of:

- preparing a stemless humeral head fixation having a humeral head including a base surface and a non stem-bearing, stabilizing, non-intramedullary base extension including multiple fins for rotational stabilization of the humeral head fixation on a cut humeral surface for coupling to the cut humeral surface;
- preparing a humeral surface for coupling the humeral head fixation thereto, including cutting the humeral surface to reveal a cancellous interior; and
- coupling the humeral head fixation to the humeral surface including cement or ingrowth fixation, or both, of the humeral head with the humeral surface, thereby recreating the anatomic proximal humeral configuration, including impacting the base extension of the humeral head fixation nonintrusively to an elongate region of the humerus below a ball region of the humerus, wherein the base surface of the humeral head contacts or substantially mates with the cut humeral surface when coupled therewith and the non-intramedullary base extension is impacted into the cancellous region, and

wherein the multiple fins are formed to have a cruciform shape and are uniformly planar along their entire extents and directly intersect at a center of the base surface, said center having a diameter that is approximately equal to a thickness of each of said fins, such that each said multiple planar fin protrudes radially along a plane from the center of the base surface where it intersects with each of the other fins.

**Claims 44-49 (Cancelled)**

**Claim 50 (Previously presented):** A total shoulder arthroplasty method for recreating an anatomic proximal humeral configuration, comprising the steps of:

Page 12 of 18

SF3115920.1  
355004-991501

Appl. No. 09/811,360  
Amendment dated October 6, 2005  
Reply to Office Action mailed May 12, 2005

Attorney Docket No. 355004-991501

preparing a stemless humeral head fixation having a humeral head including a base surface configured for cement or ingrowth fixation, or both, and a non stem-bearing, stabilizing, non-intramedullary base extension including multiple fins for rotational stabilization of the humeral head fixation on a cut humeral surface configured for coupling to the cut humeral surface;

preparing a humeral surface for coupling the humeral head fixation thereto, including cutting the humeral surface to reveal a cancellous interior; and

coupling the humeral head fixation to the humeral surface including cement or ingrowth fixation, or both, of the humeral head with the humeral surface, thereby recreating the anatomic proximal humeral configuration, wherein the base surface of the humeral head contacts or substantially mates with the cut humeral surface when coupled therewith and the non-intramedullary base extension is impacted into the cancellous region, and

wherein the multiple fins are formed to have a cruciform shape and are uniformly planar along their entire extents and directly intersect at a center of the base surface, said center having a diameter that is approximately equal to a thickness of each of said fins, such that each said multiple planar fin protrudes radially along a plane from the center of the base surface where it intersects with each of the other fins.

Claim 51 (Previously presented): The method of any of Claims 25, 31 or 42-43 wherein said step of preparing a humeral surface comprises the steps of:

surgically establishing an access to a humerus of a patient;

coupling a guide to the humerus, wherein the humeral head remains exposed;

positioning said guide to define a humeral surface; and

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Attorney Docket No. 355004-991501

removing said humeral head by cutting along said humeral surface defined by said guide, whereby a precise humeral surface is revealed for attaching an artificial humeral head fixation during said arthroplasty.

Claim 52 (Previously presented): The method of Claim 51, further comprising the step of aligning said humeral surface with a glenoid version guide.

Claim 53 (Cancelled)

Claim 54 (Previously presented): A method for performing a shoulder arthroplasty, comprising the steps of:

- surgically establishing an access to a humerus of a patient;
- coupling a guide to the humerus, wherein the humeral head remains exposed;
- positioning said guide to define a humeral surface;
- removing said humeral head by cutting along said humeral surface defined by said guide, whereby a precise humeral surface is revealed for attaching an artificial humeral head fixation during said arthroplasty;
- preparing for coupling to the cut humeral surface a stemless humeral head fixation having a humeral head including a base surface and a non stem-bearing, stabilizing, non-intramedullary base extension including multiple fins protruding therefrom for rotational stabilization of the humeral head fixation on a cut humeral surface; and
- coupling the humeral head fixation to the humeral surface, thereby recreating the anatomic proximal humeral configuration, wherein the base surface of the humeral head contacts or substantially mates with the cut humeral surface when coupled therewith and the non-intramedullary base extension is impacted into the cancellous region, and

Page 14 of 18

SF3115920.1  
355004-991501

Appl. No. 09/811,360  
Amendment dated October 6, 2005  
Reply to Office Action mailed May 12, 2005

Attorney Docket No. 355004-991501

wherein the multiple fins are formed to have a cruciform shape and are uniformly planar along their entire extents and directly intersect at a center of the base surface, said center having a diameter that is approximately equal to a thickness of each of said fins, such that each said multiple planar fin protrudes radially along a plane from the center of the base surface where it intersects with each of the other fins.

Claim 55 (Previously presented): The method of Claim 54, further comprising the step of aligning said humeral surface with a glenoid version guide.

Claims 56 – 69 (cancelled)